



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
02/03/99-151	04/24/97	HIRANO	440500/040

STROOCK & STROOCK & LAVAN  
180 MAIDEN LANE  
NEW YORK NY 10038-4982

MM71/0330

EXAMINER
BROCKE, M

ART UNIT	PAPER NUMBER
2853	

DATE MAILED: 03/30/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**08/834,151**

Applicant(s)  
**Hirano et al.**

Examiner  
**Michael S. Brooke**

Group Art Unit  
**2853**



☒ Responsive to communication(s) filed on Jan 12, 1999

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 29, 30, 32-34, and 36-53 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☒ Claim(s) 36-41 and 47 is/are allowed.

☒ Claim(s) 29, 30, 32-34, 42-46, and 48-53 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 26

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2853

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 10/29/98 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

In claim 46, the carriage is recited as including a first convex portion and a second convex portion. The specification discloses the cartridge as having these features

Art Unit: 2853

***Claim Objections***

3. Claim 33 is objected to because of the following informalities: The amendment was improperly entered. In lines 13 and 14, the left bracket after the word “part” should be removed. Even though the amendment was improperly entered, the claim has been examined as though the amendment were properly entered. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 29-32 48-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claim 29:**

- The language “a carriage ...constructed to move through said print area...” is ambiguous, as it is unclear how the carriage is constructed to allow movement through the print and non-print areas.
- “[T]he print region,” in lines 12-13 lacks antecedent basis.
- In line 9, “an ink jet cartridge” has not been positively recited.

**Claim 46:**

- It is unclear whether Applicant means to recite the carriage as having a first convex portion and a second convex portion, or whether the claimed element should be the cartridge

Art Unit: 2853

**Claim 48:**

- “[T]he attached position” lacks antecedent basis.

**Claim 49:**

- “[T]he inside edge” lacks antecedent basis.

**Claim 50:**

- “[T]he first convex portion of said ink cartridge” lacks antecedent basis.

**Claim 51:**

- The language “a carriage ...constructed to move through said print area...” is ambiguous, as it is unclear how the carriage is constructed to allow movement through the print area.
- The language “said ink cartridge constructed to be retained on said carriage” is ambiguous, as no structure is recited which would allow the ink cartridge to be retained on the carriage. Also, the language “to be,” in line 6, recites a future occurrence and does not define a patentable limitation.

**Claims 52-53:**

- Rejected on the same basis as claim 51.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

Art Unit: 2853

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 33, 42 and 45 rejected under 35 U.S.C. 102(b) as being anticipated by Kurata et al.

Kurata et al. discloses an ink jet recording apparatus comprising a printer case (26), a carriage (1) that is movable over a recording region and a non-recording region, and recording heads (2A-2D) mounted on the carriage. A releasing lever (22) is provide on the carriage (1) for maintaining the recording heads (2A-2D) in position. The lever is comprised of a first arm and a second arm which are joined together by a third arm. The free ends of the first and second arms are attached to first and second pivot points so that the lever may be pivoted about an axis, which is parallel to the direction of the movement of the carriage, extending between the first and second pivot points. The case (26) is provided with a carriage locking portion (29) that prevents movement of the carriage and the subsequent release of the recording heads, should the releasing lever (22) not be in a fully closed position. As can be seen in Fig. 2 , the recording heads have a portion which mates with a portion of the carriage.

### *Claim Rejections - 35 USC § 103*

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2853

9. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurata et al. in view of Suzuki.

Kurata et al. discloses an ink jet recording apparatus comprising a printer case (26), a carriage (1) that is movable over a recording region and a non-recording region, and recording heads (2A-2D) mounted on the carriage. A releasing lever (22) is provide on the carriage (1) for maintaining the recording heads (2A-2D) in position. The lever is comprised of a first arm and a second arm which are joined together by a third arm. The free ends of the first and second arms are attached to first and second pivot points so that the lever may be pivoted about an axis, which is parallel to the direction of the movement of the carriage, extending between the first and second pivot points. The case (26) is provided with a carriage locking portion (29) that prevents movement of the carriage and the subsequent release of the recording heads, should the releasing lever (22) not be in a fully closed position. As can be seen in Fig. 2 , the recording heads have a portion which mates with a portion of the carriage.

Kurata et al. discloses the claimed invention with the exception of a at least one resilient member.

Suzuki discloses an ink jet printer having a printing head (21) which is mounted on a carrier (22) by a resilient clamp lever (11) for the purpose of mounting a printing head. The lever has a "U"-shaped configuration and has one of its arm pivotally mounted to the carriage.

Art Unit: 2853

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide in Kurata et al. a lever having a resilient member for the purpose of mounting a printing head as taught by Suzuki et al.

10. Claims 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurata et al. in view of Uchikata et al.

Kurata et al. discloses the claimed invention, above, with the exception of an ink cartridge having a seal and a needle, attached to the head, which punctures the seal, and a discernible signal being produced by said lever when said lever is moved to a second position.

Uchikata et al. discloses an ink jet recording apparatus comprising a replaceable ink tank. As can be seen in Fig. 22, an ink tank (1703) is connected to a recording head (1701). A needle punctures a seal on the ink tank for the purpose of fluidly connecting the ink tank to the recording head. Furthermore, Uchikata et al. discloses an ink tank (8002b) which produces a clicking sound when installed into a carrier, for the apparent purpose of allowing the user to know that the tank has been properly installed (see col. 41, lines 64-68, and col. 42, line 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a lever which produces a signal, since it was known in the art to provide a signal, such a click, for the purpose of allowing the user to know that an ink tank has been properly installed.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide in Kurata et al. an ink cartridge having a seal and a needle, attached to the head, which punctures the seal for the purpose of fluidly connecting the ink tank



Art Unit: 2853

to the recording head as taught by Uchikata et al., and a discernible signal being produced by said lever when said lever is moved to a second position for the apparent purpose of allowing the user to know that the ink cartridge has been properly installed as suggested by Uchikata et al.

*Response to Arguments*

11. Applicant's arguments with respect to claims 29, 30, 32-34, and 36-53 have been considered but are deemed to be addressed by the new ground(s) of rejection.

*Allowable Subject Matter*

12. Claims 36-41, and 47 are allowed.

13. Claims 29 and 51 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, set forth in this Office action.

14. Claims 30, 32, 52, and 53 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

*Conclusion*

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2853


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S. Brooke whose telephone number is (703) 305-0262.



MSB

March 25, 1999



Benjamin R. Fuller  
Supervisory Patent Examiner  
Technology Center 2800